

# Qualitative Investigation of the Effect of Explicit Genre Instruction on EFL Learners' Written Research Article

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## Abstract

Since previous research studies revealed that novice writers still have difficulty constructing well-structured research articles (RA), genre instruction has recently focused on making rhetorical choices explicit, and this explicit focus on generic features, in turn, provided tools for the detailed analysis of academic genres of RAs. In line with recent research studies, the present study endeavored to explore the effect of explicit genre instruction on the generic features used by participants in RAs. To this end, out of 24 graduate students, who voluntarily attended a 20-session academic writing course, 17 were selected. After predominantly qualitative analysis of their written RAs, the findings revealed that explicit instruction made them aware of, and sensitive to, the rhetorical features in RAs, that they adopted these rhetorical features in their RAs, and that irrespective of a large number of similarities in their performance there were some differences with regard to their field, topic, and target journal as well as their language knowledge and experience in writing RAs. Not only would the findings of this research be beneficial for curriculum developers, teachers, and learners, but they also can lead researchers to new venues in order to delve deep into the effects of explicit genre instruction.

**Keywords:** explicit genre instruction, EFL learners, research articles, ESP, academic writing, rhetorical moves and steps

## 1. Introduction

With a growing number of students at the university level needing to master academic writing skill for disseminating their scientific achievements, the question of how to address these learners' needs has become increasingly important. It seems that by exploring different aspects of the texts produced in the context of a language writing course, insight can be gained into the ways in which writers use language to convey these important functions in their essays and find areas to target for writing instruction. Such explorations help examine similarities in the writing of diverse groups of academic writers and how they may (or may not) be sensitive to rhetorical moves.

Despite a huge number of studies on L2 writing at the university level, few have systematically examined the writing produced by these students within the context of their writing classes (e.g., Leki *et al.* 2008) and integrating cooperative learning into genre-based teaching of EFL writing (Zhang *et al.* 2009). When FL/L2 university level writing is taken into account, it often takes the form of timed essays within the classrooms, which provides a more controlled condition, but it does not reflect the writing produced over lengthy periods of time and through multiple drafts (Crossley *et al.* 2012; Friginal *et al.* 2014; Lu 2011; Taguchi *et al.* 2013). In addition, particularly in corpus-based quantitative studies, FL/L2 writing is often compared to an advanced L1 writing. Hence, little is known about the language produced by writers in their FL/L2 writing courses. The use of generic patterns can complement the dictums prescribed by the process approach, and coordinating the approaches offers learners genuine opportunities to develop skills to coherently and cohesively reproduce texts.

Many recent studies which scrutinized the language used by academicians in English concentrated on the prominence of grammatical complication in texts of developing writers, while others probed lexical complication, from the perspective of lexical diversity or variety (e.g., Crossley *et al.* 2012; Olinghouse & Wilson 2012; Sadeghi & Dilmaghani 2013; Yu 2009). Additionally, usage-based approaches to language learning in both L1 and L2 accentuate the interconnection between vocabulary and grammar (e.g., Ellis *et al.* 2013; Gentil 2010; Tomasello 2009). Furthermore, corpus linguistic research has provided empirical evidence for this model of language learning (e.g., Biber *et al.* 1999; Cho & Yoon 2013; Crossley 2008; Meunier & Gentil 2013).

Genre approach accounts for definite patterns that tend to happen with specific lexical arrangements. This approach seems particularly supportive for recognizing the patterns used to help writers develop their writing competence and inform areas for instruction. It detects vital vocabulary and grammar for educators and help connect those patterns to particular functions within texts (Liu & Jiang 2009). Except for the works by Granger and Paquot (2008) and Paquot (2008, 2010) on phraseology in L2 writing, little is known about the generic features in an EFL setting. There is an increasing awareness and empirical evidence that genres are associated with the linguistic features used by L2 writers (Friginal *et al.* 2014; Jarvis *et al.* 2003; Lu 2011; Lu & Ai 2015; O'Donnell *et al.* 2013; Way *et al.* 2000).

In recent years, researchers have become increasingly interested in genre-based pedagogy research and practices (e.g., Bawarshi & Reiff 2010; Hyland 2009; Tardy 2006). As a result, there is much evidence to support the influence of genre-based education. Although substantial research has been dedicated to genre-based

pedagogy, less attention has been paid to genre-based pedagogy with respect to the academic writing in an EFL/ESL context. Many researchers have analyzed the recurrent generic features and the rhetorical contexts of various discipline-specific genres (Bazerman 2004a; Gebhard & Harman 2011; Hyland 2003; Johns 2008, 2011; Tardy 2011). These analyses have, in turn, generated many influential genre-based pedagogical proposals and teaching materials (e.g., Bhatia 2014a, 2014b; Flowerdew, J. & Wan 2006; Graff & Birkenstein 2014; Johns 2002; Paltridge 2002; Swales 2011; Swales & Feak 2012; Swales & Lindemann 2002). Hence, the production of target genres still persists to be a topic of continuing interest in the genre-based literacy framework.

Additionally, other researchers have produced a bulk of literature on the generic features of RAs in several disciplines which have investigated either the whole article or one section of RAs within the IMRaD (Introduction Method, Results, and Discussion) framework such as the following researchers: RAs in applied linguistics (Yang, 2001); RAs in biochemistry (Kanoksilapatham 2005); RAs in computer science (Posteguillo 1999); RAs in medicine (Nwogu 1997); introductions in applied linguistics (Ozturk 2007); result section of RAs in management (Lim 2006); discussion sections of RAs in history, political science, and sociology (Holmes 1997); article abstracts and introductions in two disciplines (Samraj 2005); and discussion sections in agricultural economics (Holmes 2000).

Genre-based teaching approach is becoming popular in writing for developing students' sensitivity or awareness to different genres and facilitating students' writing tasks. It can sensitize students to the move structure of writings and the logics behind each and every move, which in turn makes it possible to make creative use of linguistic resources in order to achieve their personal goals. Therefore, it is necessary to do a comprehensive research on the use of genre-based pedagogy to shed more light on the effect of explicit academic writing instruction in an EFL context. In so doing, this study will document graduate students' engagement with genre in writing tasks in a genre-based academic writing course in an EFL context. This paper is a tentative attempt concerning the teaching of writing based on the results of genre analysis with a view to demonstrating the ways in which students can be taught how to adapt to and acquire a RA's genre.

### **1.1 Statement of the Problem**

Among scholars of applied linguistics and composition studies, the notion of academic literacy has generated discussions regarding EFL learners' intellectual and academic writing performance in the college context. Some studies (e.g., Bamford & Bondi 2005; Jwa 2015) has provided an account of how students adapt their literacy practices in response to their perceived needs for task completion. Teaching writing has attracted special importance and increasing interest at high levels of language proficiency in recent years. Since many years to remember, there have been several approaches to teaching writing used by teachers and educators.

Hence, many writing instructors, especially those working in the domains of English for Specific Purposes (ESP) and/or English for academic purposes (EAP), maintain that explicit focus on genre in teaching would provide learners with a concrete chance to acquire conceptual and cultural frameworks to undertake writing tasks beyond the courses in which such explicit instruction occurs. This study has a clear focus of analysis by discussing the literacy practice of L2 learners as they engage in genres, written works in and out of class, herein referred to as genre practice or genre-based pedagogy.

Firstly, as the time passed, the corresponding author understood that this productive skill is significantly important for those who want to write and publish their scientific findings in their fields in order to make them available for other researchers worldwide. Secondly, this productive skill is ignored or undervalued at language institutes which seemingly aim at teaching the four skills led even to the language learners' incapability of proficient writing except for those few students who practice more. And finally, as he remembers from the days of his school years, no one taught students writing skill even in their own L1, let alone teaching the skill in an L2/FL. This impetus motivated him to do a research and investigate the efficacy of explicit instruction on academic writing proficiency of the students.

### **1.2 Significance of the Study**

In fact, the specific role of content and social environments in which the content is used have remained in the dark, or have not received much attention so far. A number of ESP researchers, including Bhatia, Flowerdew, and Swales, primarily outlined the genre approach with a focus on the formal distinctiveness of genres to help learners understand the communicative purposes and linguistic features of the texts they were required to write in their professional discourses, while considering genres as tools for teaching and examining written texts that learners need to master in specific settings like EAP and English for professional communication classrooms. In line with them and a number of recent research studies conducted in the area (Carstens 2009; Martin & Rose 2008; Pare ´ 2000), this study will shed light on the usefulness and appropriateness of taking advantage of genre-based pedagogy in mastering writing skill, in general, and in particular, enabling the learners to use insightful moves and steps in producing their academic writing in order to pave the way for their successful writing and publishing RAs in nationally and internationally accredited journals. There is, therefore, a pedagogical rationale

for applying the RA genre analysis and instruction in all academic disciplines, and a further justification is that this will enable learners to determine how far the patterns observed in the previous studies are generalizable to RAs in all disciplines. In order to investigate the possible contributions of genre-based pedagogy in the context of EFL classroom-based instruction to develop genre, this study aims to fill the literature gap by answering the following research question: What generic features do most participants incorporate into their own writing?

## **2. Methodology**

### **2.1 Design**

This study reports one part of a research on the learners' mastery in a genre-based framework of academic writing instruction. The data was collected in an academic writing course in and out of a university setting. Most students enrolled in this course because of their self-perceived problems with academic writing in English and immediate need to write and publish their research findings in accredited journals. In the academic years 2016-2017 during which this study took place, the course was held for 20 90-minute sessions. Since this is an action research, special measures were adopted not only to ensure that the research data is not biased, but also to prevent other non-research related factors from interfering with the data collection and analysis.

### **2.2 Participants**

#### **2.2.1 Learners**

The participants of the study included the graduates who voluntarily attended the introductory intensive academic writing course and wanted to take complementary courses. The sample, at first, was three intact classes (A with nine, B with eight, and C with seven students) of both genders, ranging in age from 22 to 41, but finally seven participants were discarded either due to their frequent absences (two students) or poor performance of language proficiency test (three students). It should be mentioned that the data of two participants whose permission could not be gained were not included in the study. The total number of students whose data was included for final analysis was 17 (four males and 13 females). They studied in various disciplines (at undergraduate and graduate levels) including engineering, humanities and social sciences, medicine, basic sciences, and agriculture. Some participants had already written single-authored or co-authored published papers in English when the course started. Their goals, motivation to attend the course, and their perceptual needs were asked at the outset. The participants were not informed of the research aim of the course in order to obviate the possible Hawthorne effect, but in order to gain permission to include their data, they were informed and assured that only the researchers and the second rater would have access to the anonymous data, although it might be employed in follow-up studies. They were, also, told that all references to them would employ pseudonyms.

#### **2.2.2 Course Instructor**

As the corresponding author was interested in literacy skills (i.e., reading and writing) of the English language, he began teaching academic writing courses inside and outside of the university setting for different groups of students since 2014 and assessed the needs of students and the necessity of improving this skill, especially for graduate students. Firstly, as the time passed, he understood that this productive skill is significantly important for those who want to write and publish their scientific findings in their fields to be internationally available for other researchers. Secondly, this productive skill being ignored or undervalued at language institutes which seemingly aim at teaching the four skills led even to the language learners' incapability of proficient writing except for those few students who practice writing for the sake of taking some tests like IELTS. The third reason is, as he remembers from the days of his school years, no one taught students writing skill even in their own L1, let alone teaching the skill in a FL/L2. And finally, he understood that the learners even fear writing a couple of sentences in English though some have already taken English courses and yet some others believed that they are good at English language. This impetus motivated him to do a research and investigate the efficacy of explicit instruction on academic writing proficiency.

#### **2.2.3 The Raters**

The first rater was the corresponding author and the second rater was a PhD candidate in TEFL who was trained how to evaluate the written tasks independently of the first rater.

### **2.3 Instruments**

#### **2.3.1 Instructional Materials**

As in most academic writing courses, this course covered the most common curricula based on the available sources (e.g., Bailey & Powell 2007; Bailey 2003; Bailey 2015; Bhatia 2014b; Bruce 2008; Devitt 2004; Graff & Birkenstein 2014; Hartley 2008; Knapp & Watkins 2005; McCarthy & O'Dell 2008; Oermann & Hays 2010; Olsen 2009; Paquot 2010; Pecorari 2008; Savage & Mayer 2006a, 2006b; Saver 2010; Swales & Feak 2012; Wallwork 2013; Yakhontova 2003, etc.). The curricula can be categorized into two different parts including: (a) the different sections of a paper (title, abstract, key words, introduction, research question, research hypothesis, statement of the problem, review of literature, methodology, participants, materials, data and interpretation,

results, discussion, conclusion, cover letter, title page, implications and applications, references, appendices, acknowledgements, limitations, and delimitations) and (b) useful models and templates (Swales' (1998) CARS model, templates, common phrases used in different parts of a paper).

### **2.3.2 Measurement Instruments**

The tasks that the participants were asked to do included: (a) core out-of-class written assignments in the course and (b) periphery, in-class or out-of-class assignments. The core out-of-class writing assignments were related to different sections of RAs (i.e., abstract, introduction, method, results, discussion, and conclusion), which were used as the primary corpus of the study, and the periphery, in-class or out-of-class assignments varied from writing a comprehensive introduction of themselves (a kind of self-reported demographic information for further use), to finding accredited journals, to writing essays of different types, to critically reviewing and commenting on the published articles the same way as editorial board do (after teaching them how the papers undergo the peer-review process, what the criteria might be, how can the paper be improved, etc.).

The logic behind doing the periphery tasks was practice rather than collecting a corpus for analysis. These practices would enable the learners to notice certain prototypical and non-prototypical textual features and, more importantly, enable them to use these features to explore the various dimensions of the rhetorical context of the RAs' genre, keeping in mind that prototypical features have readily recognizable genre-specific values. The written genre analysis tasks were also designed as a tool for them to uncover these aspects of genre from the samples in their own different majors, and even different areas of knowledge in which each learner was directly involved, which provided some background for the students to single out certain textual features as noteworthy.

### **2.4 Corpus**

The corpus for analysis included different sections of RAs (i.e., abstract, introduction and literature review, method, results, and discussion and conclusion) written by the students in academic writing course.

### **2.5 Data Collection Procedures and Treatment**

The instructional course aimed to prepare intermediate and advanced graduate students for writing RAs in their disciplines. Most students in the course were expected to write up and even publish their research projects in academic journals before and after their graduation. Therefore, the classes focused on helping them become familiar with the genre-specific features of RAs published in their field based on student-collected published RAs as the secondary instructional materials in the course.

The time given to each task varied depending on the difficulty level, the required time, the prerequisites, etc. The participants were given assignments regularly based on the discussions in the classroom and were asked to turn in their assignments. The documents were collected from the students as regular learning requirements of the course and were analyzed for research purposes during and after the course. All tasks were to be submitted on the due dates indicated in advance. All drafts were to be typed, double-spaced, titled, and paginated, with the standard 1-inch margins, Times New Roman, and 12 pt font, with a good title, indentation, and paragraphing, with their name, date, and assignment number and draft on the first page. They were asked to proofread everything before submitting, and follow APA Style.

To encourage the students to "become more observant readers of the discoursal conventions of their fields" (Swales & Lindemann 2002, p. 118), the participants were instructed to collect at least 15 published RAs from recent (preferably from 2010 to 2016) volumes of accredited peer-reviewed international journals in their fields in which they were interested (based on their preferred research area and their proposed title for the research) in order to build what Swales and Feak (2009, p. 3) called a "reference collection" as a guide to use whatever taught in the course. Throughout the course, along with the primary syllabus, samples from the student-collected RAs were used to lead discussions aimed at heightening the participants' awareness of the genre-specific features in, and the rhetorical contexts behind, different sections of RAs. Similar to Swales and Lindemann (2002), these discussions were designed as open-ended and inductive ones. They aimed at making explicit to all the participants the diverse, but interrelated, dimensions in the genre exemplars, including the rhetorical organizations, the textual features, and any rhetorical reasons behind these organizational and linguistic features.

The in-class discussions were complemented by out-of-class genre analysis tasks. In these exercises, they were independently asked to analyze different moves or steps in the abstract, introduction and literature review, method, results, and discussion and conclusion of RAs. They read and analyzed different parts of the RAs. They were encouraged to highlight whatever organizational, lexico-grammatical, or other features in the collected RAs. Their tasks, written or oral, ranging from finding accredited journals, to preparing a good source of RAs, to composing mock paper, were guided and given credits. Their mistakes, whether repeated or not, were corrected directly or indirectly (e.g., for individually committed mistakes by commenting on their written assignments and, for group-committed ones, discussing in class and giving them further explanatory details).

The course adopted the principles of ESP genre-based teaching explained in Bhatia (2004, 2014a), Flowerdew, J. (1993), Swales (1990), and Swales and Feak (2000, 2012) to meet the needs of the students, many



of whom were required by their programs to write up and publish their current or future research projects. The course mainly focused on the overall macro rhetorical organization of RAs, deductively and/or inductively. In the classes, the attention was drawn to the way in which “communicative purposes are often expressed in a sequenced manner,” the way in which “a text is usually built up schematically through a series of moves and steps,” and the way in which “conventionalized linguistic patterns frequently express the communicative functions of a genre in ways recognized and sanctioned by the discourse community that uses such a genre” (Cheng, 2011, p. 4).

Due to learners’ weak listening proficiency, the media of instruction was mostly Persian but almost all materials (slides for presentation, models, excerpts of previously published papers as examples, and supplementary data) were in English. All the above rhetorical functions were taught using genre-based approach. Firstly, those rhetorical functions were taught. Then, the students were told about the grammatical structure used in that writing. After that, examples were given to the students. Finally, the situation/topic was given to the students, and they were asked to write and produce the similar kind of writing, and they received detailed feedback on their writing through class activities as well as individual talks (when necessary) throughout the course. The class combined lecture and discussion with other activities including peer editing (a few cases) and analysis and editing students’ writing (See Appendix B for a Sample of the Course).

## 2.6 Data Analysis Procedure

Examples of students’ written assignments of RAs from the writing course that adopted the ESP genre-based approach to teaching academic writing were qualitatively analyzed. In the data analysis, RAs were tracked using rhetorical move analysis and organization. In the qualitative data analysis, the main issues under investigation included prototypical rhetorical features. The corpus was examined in terms of type of moves, steps, and sub-steps. Move can be defined as a communicative unit which carries a certain communicative purpose of a particular part of the text under investigation. Moves may be manifested by one (or more) subsequent elements called steps. In so doing, the identification of moves was made on the basis of linguistic evidence and knowledge about the content of the text (Dudley-Evans 1994; Nwogu 1997). The identification of moves and steps in the corpus was done recursively, that is, the analysis of any part of the RAs were done until the identification of the communicative units of moves and steps were satisfactorily done. In order to ensure the reliability of the analysis, the corpus was analyzed by a second rater who was trained in genre analysis. The Cohen kappa inter-rater agreement showed a kappa value of 0.83.

## 3. Results and Findings

In the following sections, the moves and steps of different sections of written RAs will be analyzed based on the frameworks proposed by the scholars.

### 3.1 Moves in ‘Abstract’ section

Table 1. Move Sequence in Abstracts Written by the Participants

Moves	N	Participants
IMPRi	5	s3, s8, s14, s16, s17
IPMRDi	3	s2, s5, s6
PMRi	2	s4, s10
IMPR	2	s7, s11
IPMRD	2	s1, s9
IMRD	1	s15
PMRD	1	s12
IMRi	1	s13

Based on Table 1, regarding the abstract, almost one third of the participants followed the moves of IMPRi in the abstract, while more than two thirds of the participants followed different move sequences (e.g., IPMRDi, PMRi, IMPR, IPMRD, IMRD, PMRD, and IMRi). It should also be noted that less than half (7 participants) put ‘Purpose’ move between ‘Method’ and ‘Results’ moves, that less than half (7 participants) put ‘Results’ move between ‘Method’ and ‘Discussion’ moves, that more than half of the participants put ‘Method’ move right after ‘Introduction’ move, that almost two thirds (11 participants) ended the abstract with ‘implication’ move, and only three participants started the abstract with ‘Purpose’ move without including ‘Introduction’ move.

Additionally, it can be understood that all participants included ‘Method’ and ‘Results’ moves. The inclusion of ‘Purpose’ move outnumbered that of ‘Introduction’ move. While only less than half of the participants included ‘discussion’ move, almost two thirds of them included the last move in move sequence (i.e., implication move). In some cases, they only wrote a neutral sentence about the implication of their findings (e.g., The implications of results are discussed in the article.) not exactly specifying the intended uses of their research

findings. Some students omitted some moves in the abstract and gave a lengthy description of other moves instead. The other students provided information about some moves and sometimes mixed the moves into single sentences (s5; [purpose] in order to identify the most appropriate amount of additives for reducing setting time, [method] several concentrations of sodium fluoride (1, 2, 4, and 10%), sodium silicate (1, 2, 4, 10, and 15%), and potassium carbonate (1, 2, 4, 10, 15, and 20%) were added to Portland cement) (See Appendix B for an example abstract.).

### 3.2 Moves in 'Introduction' section

They also adopted the moves and steps proposed by Swales' CARS model to RAs in the introduction by including some and omitting the others or changing the order of appearance. Introductions to RAs written by some participants can be regarded as prototypical for the genre, in the sense that they instantiate the main move-and-step structures, there was a considerable amount of variation, though. Especially in cases where students used separate 'introduction' and 'literature review' sections, they did not include some moves of CARS model (move 1; step 3; Step 3: Reviewing items of previous research) and put them in 'literature review' section instead. However, most of them applied Move 2 in general and Step 1B: Indicating a gap in particular in the literature. Additionally, no participant included the Move 3; Step 3 (Indicating RA structure) at the end of the introduction. The analysis of the written RAs showed that the participants used the moves and steps (adopted from CARS model proposed by Swales) in order to accomplish the goals intended by each. They did not include all steps in the model proposed by Swales but most of the moves and steps are somehow similar.

Table 2. Moves and Steps in Introduction Written by the Participants

Move	Step	N	Participants
Move 1: establishing a territory	Step 1; Claiming Centrality	17	All participants
	Step 2: Making Topic Generalizations	17	All participants
	Step 3: Reviewing items of previous research	15	Except for s6 and s11
Move 2: establishing a niche	Step 1A: Counter-claiming	5	s1, s4, s7, s8, s12
	Step 1B: Indicating a gap	15	Except for 13 and 17
	Step 1C: Question-raising	3	s10, s16, s17
Move 3: occupying the niche	Step 1A: Outlining purposes	17	All participants
	Step 1B: Announcing present research	9	s3, s4, s6, s8, s11, s13, s14, s15, s17
	Step 2: Announcing principal findings	7	s1, s4, s5, s7, s9, s13, s16

As shown in Table 2, it can be understood that all participants used the first two steps of the first move in order to make their topic of research seem more important and attract the readers' attention. Additionally, all participants explicitly wrote the purpose(s) of their RAs in Step 1A of the third move in order to let readers understand the exact logic behind their RA. Almost all participants included the third step of the first move (review of previous studies) and the same number of participants included Step 1B of the second move. Almost half of the participants included Step 1B and Step 2 of the final move. Interestingly, the least number of participants included Move 2; Step 1C: Question-raising. In some RAs, there was a separate part dealing with the exact research question (s16 and s17) or research hypotheses (s10 and s16) to which the research was directed, whereas others did not include explicit research question and they wrote the title playing the role of research question as well.

### 3.3 Moves in 'Methodology' section

Although the methodology section with its relevant sub-sections does not usually follow an established move-and-step framework like IPMRDi (for abstract) or CARS (for introduction), the students used different essay types to describe different sub-sections as moves including (design of the study, the justification of the methodology, the description of subjects or participants, materials, instruments, and data collection and analysis procedures, etc.) of methodology.

Table 3. Moves in Methodology of RAs Written by the Participants

s	Move 1	Move 2	Move 3	Move 4	Move 5
s1	Design	Instruments	Data collection procedure	Participants	Data analysis procedure
s2	Design	Participants	Instruments	Data collection procedure	Data analysis procedure
s3	Research Design and Participants	Instruments	Treatment	Data collection and analysis procedure	
s4	Design	Participants	Instruments	Data collection procedure	Data analysis procedure
s5	Materials	Data collection	Statistical Analysis	-	-
s6	Design	Participants	Research tools	Data collection and analysis	-
s7	Materials	Data collection	Data analysis	-	-
s8	Materials	Data collection	Data analysis	-	-
s9	Participants	Data collection	Data analysis	-	-
s10	Participants	Instruments	Data collection and analysis	-	-
s11	Materials	Data collection	Statistical Analysis	-	-
s12	Setting	Data collection	Statistical Analysis	-	-
s13	Participants and sampling	Data collection and analysis	-	-	-
s14	Participants and sampling	Data collection	Data analysis	-	-
s15	Design	Sample	Data collection	Data analysis	-
s16	Corpus and sampling	Data collection and analysis	-	-	-
s17	Materials	Data collection	Data analysis	-	-

According to Table 3, the findings showed that eight participants (s1, s2, s4, s9, s12, s13, s14, and s15) did not use heading for different sub-sections in their written papers, and either separated the sub-sections by writing them in different paragraphs or mixed them into one or more paragraphs. While nine participants (s3, s5, s6, s7, s8, s10, s11, s16, and s17) used headings to separate different sub-sections of methodology. All participants wrote design and sampling, participants, materials, or setting at the beginning and data collection procedure toward the end of methodology, followed by data analysis procedure (at the very end).

Table 4. Number of Participants Including Each Move in Methodology of Written RAs

Sub-section	N	Participants
Design	6	s1, s2, s3, s4, s6, s15
Instruments	6	s1, s2, s3, s4, s6*, s10
Data collection procedure	17	All participants
Data analysis procedure	17	All participants**
Materials	5	s5, s7, s8, s11, s17
Sampling & Participants	11	s1, s2, s3, s4, s6, s7, s9, s10, s13, s14, s16
Setting	1	s12
Treatment	1	s3

\*Titled with 'Research Tools'

\*\*s11 and s12 entitled 'Statistical Analysis'.

Based on Table 4, it can be understood that all participants included data collection and data analysis procedures, but only one of them (s3) gave treatment and reported the treatment in the paper. Additionally, it can be understood that 11 participants dealt with animates and five dealt with inanimate to collect data.

### 3.4 Moves in 'Results and Findings' section

This section was mostly based on the order of research questions or hypotheses (when more than one question) or the results were classified based on the research (qualitative vs. quantitative) or data type (descriptive vs. inferential). They used figures and tables to clarify and present their findings and interpreted their findings when necessary.

### 3.5 Moves in the 'Discussion and Conclusion' section

For discussion and conclusion section, some moves-and-steps frameworks were provided during the course (e.g., Dobakhti 2016; Holmes 1997, 2000; Hopkins & Dudley-Evans 1988, etc.), and the participants adopted these in writing discussion and conclusion section of their own RA. It can be argued that it is impossible to follow all moves and steps proposed by previous researchers in all RAs; and this can stem from the fact that some factors depending on the type of research (qualitative vs. quantitative), topic, field, target journal, allowed length for each section and the whole paper, and so forth may somehow limit writers when following established rhetorical genres.

Based on moves and steps (adopted from Dobakhti 2016; Holmes 1997, 2000; Hopkins & Dudley-Evans 1988, etc.), the preliminary analysis of the participants' RAs revealed the following moves and steps in the discussion and conclusion section. The characteristics of these moves and the steps that realize them are described in this section. The appearance of these moves in a sequenced way does not necessarily mean that all the students followed them in the same order they appeared in this list. Nor does it mean that all the participants included all moves and steps listed here. The order in more RAs was not the same as the following pattern, and in some cases they used sub-sections under which they described some moves. The common moves which were used by the students were listed as follows:

Table 5. Moves, Steps, and Sub-Steps in Discussion and Conclusion Section

Move number	Move name	Step	Sub-step	N	Participant
1	Background information			5	S3, s5, s7, s11, s15
2	Reporting Findings	Step 1: Stating Findings		13	s1, s2, s3, s4, s5, s6, s7, s9, s10, s11, s13, s14, s17,
		Step 2: Summarizing Findings		12	s1, s2, s3, s4, s6, s7, s8, s10, s11, s12, s15, s16
3	Referring to Data to Provide Evidence for Findings			15	s1, s2, s3, s4, s5, s6, s7, s8, s9, s10, s11, s12, s14, s15, s16
4	Commenting on Findings	Step 1: Explaining Findings		15	Except for s16, s17
		Step 2: Interpreting Findings	Step 2A: Providing Interpretation	13	S3, s1, s5, s6, s8, s9, s10, s11, s12, s13, s14, s16, s17
			Interpretation by Referencing	11	S3, s1, s2, s6, s9, s10, s11, s13, s14, s16, s17
5	Referring to Data to Support the Explanation/Interpretation/Evaluation/Rejected Explanation			17	All participants
6	Comparing Findings with Literature (reference to previous research)	Step 2: Indicating Inconsistency of Findings with Literature		17	All participants
				10	S16, s1, s2, s4, s5, s7, s8, s10, s12, s13,
7	Deduction (Generalizability)			15	Except for s12, s16
8	Providing Information			3	S17, s11, s4
9	Stating Limitations			2	S6, s11
10	Recommending Further Research			5	s10, s3, s12, s15, s7

According to an adopted version of the moves and steps for discussion and conclusion section (Table 5), it was found that, although there were fundamental similarities between RAs written by the participants, discussion sections also displayed some distinctive features. Based on Table 5, the analysis of the 'discussion and



conclusion' section of 17 RAs revealed that, from the moves and steps listed above, some moves and steps were included by all participants (e.g., Move 5 and Move 6, Step 1), some moves were more frequent than others (e.g., Move3; Move 4, Step 1; etc.), and some moves or steps (e.g., Moves 1, 8, 9, and 10) were included by fewer participants. Additionally, there were similarities and differences between the appearance of the moves and steps with respect to order.

#### 4. Discussion and Conclusion

The findings revealed some important similarities in the content and form (moves and steps) of the written RAs. The present study has also revealed that, irrespective of the differences in the surface, the writers tried to stick to what is expected, and in one way or another they organized their RAs in such a way that is desirable and acceptable as a RA by the intended journal. The findings also showed that all participants included the required sections (abstract, introduction and literature review, methodology, and discussion and conclusion) with the same headings or similar ones or at least contained the necessary information related to each section.

The analysis of the written RAs also showed that the participants used the move-and-step framework as much as possible and necessary. Considering the abstract section as an example, it is clear that almost two thirds of the participants used the IMPR moves and others followed similar moves in the abstract with more or less moves in number. These frequent occurrences of the fixed features of RAs in the participants' written RAs mean that RAs in most disciplines and topics intended for various journals have somewhat the same format and content, that is, the authors should provide the information in some similar way. These similarities may either stem from the conventions among the scholars and even readers or publishers and organizations.

These findings are in line with the previous research findings (e.g., Askhave & Swales 2001; Flowerdew, L. 2000; Hopkins & Dudley-Evans 1988; Holmes 1997, 2000; Hyland 2008; Lantolf & Thorne 2006; Lim 2006). The use of specific moves and steps in academic writing has been noted by several researchers. Dobakhti (2016, pp. 2-7) reported how to use somewhat static moves and steps in the presentations of the discussion section of qualitative RAs in applied linguists.

Additionally, other researchers have produced a bulk of literature on the generic features of RAs in several disciplines which have investigated either the whole article or one section of RAs within the IMRaD (Introduction, Method, Results, and Discussion) framework. The findings in this study are, to a large extent, in line with the findings of the following researchers: RAs in applied linguistics (Yang 2001); RAs in biochemistry (Kanoksilapatham 2005); RAs in computer science (Posteguillo 1999); RAs in medicine (Nwogu 1997); introductions in applied linguistics (Ozturk 2007); result section of RAs in management (Lim 2006); discussion sections of RAs in history, political science, and sociology (Holmes 1997); article abstracts and introductions in two disciplines (Samraj 2005); and discussion sections in agricultural economics (Holmes 2000).

Previous research on academic writing genres has illustrated that it typically functions to create understandable conventions with the audience. In the gathered data, the rhetorical style seemed to be an important component of a successful presentation of written research paper. In line with Frankel (2013), the findings also proved that explicit genre instruction as a way to make learners sensitive to the moves and steps in different sections and sub-sections of a RA pave the way for them to use these rhetorical styles when writing their own RA. However, it is believed that these fixed or semi-fixed recurring moves and steps impede learners' creativity and make them imitate only available styles.

In short, it is logical to conclude that explicit genre instruction helped learners deconstruct and construct academic writing genre in their RAs. Additionally, it can be concluded that learners adapted the genre moves and steps in different sections of the RA in accordance with the expected moves and steps of the target journal (the journal from which they downloaded the papers as sample). In each section, to start the moves and steps they used some common phrases out of which some were more prevalent than the others. Findings also proved that the differences in each aspect of generic features were mostly related to field, topic, and the target journal as well as the degree of their mastery. Although there were some differences between their written RAs, there were more similarities both in form (sections, subsections, moves, and steps) and content (lexicon and grammar).

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